# SX-4417

# **Non-Contacting Steering Sensor**



#### **Features:**

- Dual torque and multi-turn position outputs in one compact package
- Redundant outputs for full diagnostics
- Lead-free
- RoHS 2 compliant



#### **Applications:**

Electric power steering systems

## **Electrical**

Torque operating input voltage range	4.5 to 5.5 VDC
Torque input voltage absolute limits	-14.5 to +30 VDC
Torque supply current	10 to 20 mA
Torque sensed angle	±5°
Torque signal linearity	±3%
Torque hysteresis	±1.3%
Torque signal microgradient (over travel increment of 0.4°)	3.2% V <sub>in</sub> ±1.0% V <sub>in</sub>
Torque wobble	40 mV
Position operating input voltage range	4.5 to 5.5 VDC
Position input voltage absolute limits	-0.3 to +6.5 VDC
Position supply current	25 to 50 mA
Position signal linearity	±1%
Position hysteresis	±0.25%
Position signal microgradient (over travel increment of 2°)	1.11% V <sub>in</sub> ±0.34% V <sub>in</sub>

## Mechanical

Torque mechanical travel	Continuous
Position mechanical travel	Continuous
Turning torque (position rotor to housing)	0.02 NM maximum
Weight	101 gram maximum

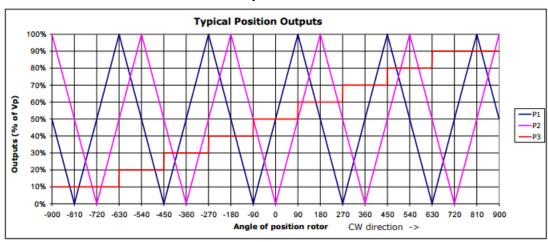
# **Non-Contacting Steering Sensor**

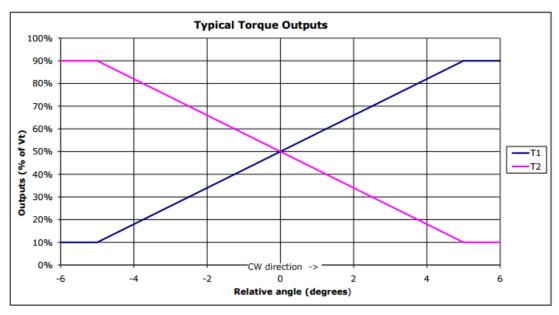


#### **Environmental**

Operating temperature range	-40°C to +85°C
Vibration	10 to 55 Hz with 1 mm P-P constant displacement, 120 hours each of 3 planes
Torque rotational life	Infinite (non-contacting)
Position rotational life	1 million revolutions
Storage temperature range	-55°C to +105°C

# **Output Charts**



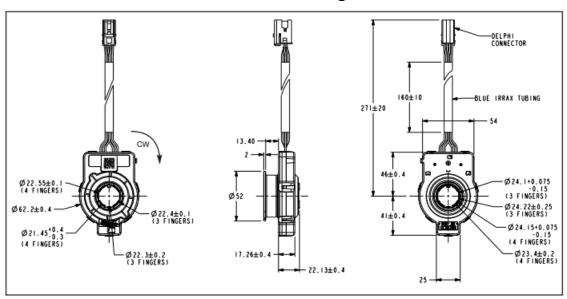


Different output signals can be easily configured by BI. Contact factory for details.

# **Non-Contacting Steering Sensor**

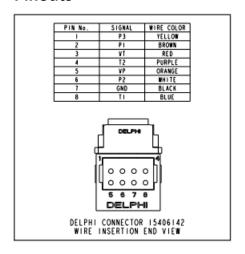


## **Outline Drawing**



Dimensions in mm Detailed outline drawing available on request

## **Pinouts**



## **Barcode Label**



# Micro QR M4 symbology

